Arabicized ICDL: Towards a Concrete Step in Standardization

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Abstract: The aim of this article is to show how through ICDL (International Computer Driving License) an autonomous and effective Arabicized computer course is very much possible and to point out the potential impact of such an international course on the way of standardization of terminology in the Arab world.

Key words: international computer course, arabicization, standardization of terminology.

The Information Age is forcing itself fully with all its features. In an era where computer literacy has become a must, everyone has the right to access this technology in their own language. Since English is the world dominant language of instruction in the field of IT, individuals with low English proficiency are striving to get through and keep up with technological breakthroughs. It is unquestionable that computers are becoming part of everyday life; they are used in schools, homes, supermarkets, on-line banking and on-line services, etc. Hence, the use of computers is comprehensive and not limited to merely one group. Businessmen need to browse through their computers as well as housewives. The need for having computer-literate societies is becoming indispensable. . The arabicization of ICDL *(International Computer Driving License)* was designated to serve this aim and consequently help fellow individuals acquire certain computer skills in their native language. As previously said, individuals and in our case study, Arabs with low English proficiency have the right just as their fellow bilingual citizens to have a mastery of this technology. It is noteworthy that there still exists Arab communities where English proficiency is relatively low such as

Syria, Jordan, Saudi Arabia and United Arab Emirates This requires that numerous efforts be deployed so as to make computer literacy available to all Arabs in their native language regardless of their educational backgrounds. The question to be asked at this point is, "What has been done in the Arab World so far to prepare for a computer-literate society?" Yes, computer courses are finding their way intensively at universities and educational institutes in English language, but what about the monolinguals whose English language skills are beyond the required level which impede them from doing their computer training in English successfully?

A survey was conducted among students and instructors in one of the academic institutions in the United Arab Emirates so as to assess the applicability and effectiveness of such a course in Arabic. Having an international course that is taught in a number of Arab countries is a step towards unification and standardization of terminology. The Arabic ICDL is taught in the Gulf area in addition to other Arab countries like Jordan, Syria and Egypt. This means that students who are likely to be future professionals and end-users in the field in the pre-mentioned countries are learning and using the same Arabicized terminology.

ARABIC LANGUAGE AND TECHNICAL TEXTS

The tendency towards anglicizing computer sciences is not a reasonable solution for having a computer-literate society. The claim that the Arabic language is not efficient for technical texts and computer sciences is not very accurate. Examples drawn from the past prove that the Arabic language was able to meet the demands in the past and is able to do the same at present. The book entitled Al-Qanoon by Ibn Seena was a very distinguished book of medicine in the West during the Middle-Ages. It was translated into Latin and printed 16 times during the last 30 years of the 15th century and was reprinted 20 times during the 16th century.

Arabic language is distinguished for its flexible qualities such as synonymy, derivation and analogy. It is able to expand to include the human civilization as well as the technical and scientific knowledge to catch up with the development of science and accept what is new. Terms like 'whole number' (العدد الصحيح); 'fraction' (الكسر); 'multiplication' (الضرب); 'length' (الطول); 'width' (العرض) were borrowed and have become part of the Arabic scientific language. These lexical items represent concepts that Arabic language speakers are familiar with and can use easily, naturally and far from any complications. Why not then adopt a

plan to produce standardized Arabic computer terminology that can be used in the same smooth way by all the Arabic language speakers?

WHY ARABICIZE?

The Arabicization of computer courses maintains the language up breast with breakthroughs and technological advances. It is the means through which language expands and gains new lexical items through coining and borrowing (Khassarah, 1994). Of course, without Arabicization, the language will remain alive, but it will be detached from the present Age and modern scientific life. Without Arabicization, the role of the Arabic language confines to religion and literature, thus disabling the language from expressing the scientific contemporary issues.

Besides, it gives the chance for everyone to acquire computer skills. It is the right for monolinguals to stand on equal footing with the bilinguals and have the same opportunities in getting the necessary qualifications that would upgrade them for a better position and help them in building a computer-literate society. It is unfair for them to believe that their lack of English language knowledge would deprive them from using technology, the feature of this Age. It is not only that, but they will soon become a burden for their country, as they will cause in widening the gap with the developed countries.

METHODOLOGY

Case Study

In a study carried out on students taking the ICDL course in English in Al-Ain Higher Colleges of Technology (HCT) for the purpose of a master's research on Arabicization of computer terminology (Rifai, 2004), it was noted that students with poor English language proficiency were assigned to take English language courses to obtain the minimum skills required to get on with their computer training for the International Computer Driving License (ICDL[1]) certificate in English. Students were assigned the number of English language hours according to their English language proficiency. The number of English hours assigned ranges from

[1]A course that consists of seven modules: 1- Basic Concepts of Information Technology. 2- Using the Computer and Managing Files. 3- Word Processing. 4- Spreadsheets. 5- Databases/ Filing System. 6- Presentation. 7- Information and Communication. This material is prepared by Cheltenham Computer Training, UK and translated by ReDSOFT, Kuwait.

130 to 520. The negative aspect of this process is that much time and money are spent before the actual goal, the acquisition of computer skills, takes place. In addition, it is not guaranteed that the English language will no more be an obstacle. Students may still suffer in understanding the concepts and may struggle while taking the tests, which means more failure and more time and money are to be spent for another attempt.

The introduction of the translated international computer course (Arabic ICDL) saved the time, money and effort. Students with low English language proficiency were given the computer course in Arabic and that proved to be a success. The application of the Arabic ICDL opened an opportunity to even younger learners. Emarati students from grades ten & eleven in public schools were offered to take this course during the summer holiday 2003 in the Higher Colleges of Technology. 728 students of both genders enrolled in a six-week course of which 676 remained till the end. 581 students passed the seven ICDL modules and were granted the 'ICDL certificate' whereas ninety-five students passed four modules or above and were granted the 'Start-ICDL certificate'. This course would have never been offered to school students had it been in English and if we assume that it would, the number of students passing the tests in English would definitely be less as most of them were classified as English average students. The Arabic ICDL gave a good chance to a bigger proportion of school students to take the course. This proves that Arabic computer courses contribute effectively in wiping out computer-illiteracy. With the implementation of the Arabic computer course, monolinguals have the same chance as bilinguals to obtain international qualifications. For example, in Jordan, the Ministry of Education encourages all the teachers to get the ICDL certificate according to their language preference. Thus, bilinguals and monolinguals have the same opportunities in upgrading themselves to meet the requirements of this Age.

FINDINGS AND DISCUSSION

Students' Language Preference

The questionnaire conducted in the above mentioned research on forty-three students of the Work Readiness Program taking the ICDL in Arabic in Al-Ain HCT, showed that 86% of the monolingual students preferred to do the computer courses in Arabic. Their justification was that

their level of understanding in Arabic was higher than English. In addition, their efforts were not torn between learning computing skills and decoding the English language.

Arabicized Terminology Efficiency

The Arabicized terminology in the ICDL course was examined according to three evaluation criteria: linguistic correctness, acceptability and appropriateness.

1. Linguistic Correctness

It is the study of the term in respect with the rules of syntax of the target language. In other words, the translated terms should not violate the rules of grammar. The compound one-word terms, two-word terms, three-word terms are translated literally in the ICDL handbook. For example, notebook computer الحاسوب الدفتري , super computer الحاسوب الفائق Random Access Memory ذاكرة الوصول العشوائي , search engines محركات البحث with changes regarding the order of words that corresponds to the Arabic rules of grammar. However, the results of the research show that the terms are linguistically correct and it is clear that they are under the influence of term formation in the source language as Sager (1990) points out.

> Language of developing countries therefore also come under the influence of word formation patterns of other languages and may as a consequence; genuinely widen their means of expression. Little can be said here as the many diverse techniques of term formation since they are as diverse as the languages which evolve new terminologies. They are however all exposed to direct borrowing, loan translation, paraphrases and then more or less acceptable according to common elements between the exporting and importing languages. (p. 85)

2. Acceptability

Acceptability means approving willingly of the term usage in the target language community. However, acceptability of terms is not yet very clear as Pavel (1993) points out that sometimes linguistically correct terms are not easily accepted whereas other incorrect terms find their way even into the professional community.

> The relationship between correctness and acceptability, and their respective impact on the molding of new technologies are yet not clearly understood. Many grammatically correct terms never find acceptance within a professional community while others become accepted only after a long, uphill battle. Incorrect ones may be readily accepted for no apparent reason, and whereas some of these are as readily replaced, others become impossible to uproot from current usage. (p.24)

Specialists in the field of terminology talked about acceptability in terms of the linguistic aspect:
"It is for instance perfectly acceptable to borrow terms from the language in which the concepts have been created, or to render them in a target language by means of descriptive phrases for lack of a single term" (p.23).

Others talked about it in terms of the cultural aspect. Rey (1995) points out that the sociological factor is as important as the linguistic factor: "The psychological and sociological factors are as restricting as the linguistic system; they determine the lexical norm and guarantee the efficacy of communication" (p.66).

The questionnaire from the previous study showed that the reason behind unacceptability of most of the terms classified as 'poor' was the students' lack of computer knowledge. In other words, once they became familiar with the term, it was then acceptable to them. Terms that were approved of by the sample audience and were classified as both 'excellent and good' in the questionnaire were considered acceptable according to the following classification: 90-100 high acceptability, 80-89 good acceptability, 70-79 average acceptability, 60-69 below average acceptability and 50-59 low acceptability. Students who abstained were excluded from the study. The formula was calculated as follows: 100% = the whole number of students – the abstained ones.

The following tables show the percentage and degree of acceptability of the following terms: 'mouse', 'laptop' and 'supercomputer'.

- Mouse الفأرة

Table 1 shows the percentage of acceptability of the translated term 'mouse' فأرة and table 2 shows the degree of acceptability of the translated term 'mouse' فأرة

Table 1. The percentage of acceptability of the translated term 'mouse' فأرة

Term	No. of students who classified the term as 'excellent' or 'good'	Students percentage	No. of students who abstained	No. of students that equals 100%
Mouse فأرة	36	83.7	-	43

Table 2. The degree of acceptability of the translated term 'mouse' فأرة

Term	Students percentage	Degree of acceptability
Mouse	83.7	Good

Table 2 shows that, the percentage of acceptability of this term is 83.7, thus it has gained 'good' acceptability. However, as the sociological factor is as important as the linguistic factor (Rey, 1995) and terms with negative connotations are not preferred (Cabré, 1999), one wonders if the translation of this term is suitable and is the best choice in the Arab community? Hardly had any of the sample audience asked him/herself this question before the translation was classified as 'excellent' or 'good'. The links here with what is said about usage, once the term is frequently used and people are familiar with it, they rarely reject it. The linguistic functions are visible to the specialists, but not to the public (Rey, 1995). This means that the term has become more acceptable with frequent usage where the linguistic form is forgotten at the expense of concept. People have accepted it and determined its position in the language system. This implies that frequency of a term does not mean that it is the best choice. When laymen, including computer specialists, are familiar with a term, they just automatically use it without examining the linguistic aspect. For them, it is only a means of communication.

In an article published in the translation journal, the writer, Anca Irinel (2004) points out that mice are dangerous animals that destroy everything. According to her, this term was created as a reminder of the playful and joyful character of Disney World (pp.4-5). Opposite to this bright picture in Disney land, mice are only small dangerous animals in the target language culture, when the mouse device was invented, the Americans were enjoying watching "Jerry" the mouse whereas the target language culture used mousetraps to get rid of these disgusting animals. Some companies

such as "Apple" prefer the use of the borrowed term "ماوس" (mouse) over "الفأرة" (the animal in Arabic) because of its negative connotation to the Arab user ("ugly disgusting creature") (Raddawi, 1995). It is the responsibility of the translators and terminologists to do more investigations on the connotative meanings of terms in the target culture before it is dealt with because once it is used it is then hard to be replaced.

- Laptop الحاسوب المحمول

Table 3 shows the percentage of acceptability of the translated term 'laptop' الحاسوب المحمول as it appears in the ICDL handbook and table 4, the result, shows that the term has gained an average acceptability.

Table 3. The percentage of acceptability of the translated term 'laptop'

Term	No. of students who classified the terms 'excellent' or 'good'	Students percentage	No. of students who abstained	No. of students that equals 100%
Laptop	25	71.4	8	35

Table 4. The degree of acceptability of the term 'laptop'

Terms	Students percentage	Degree
Laptop	71.4	Average

- Super computer الحاسوب الفائق

Table 5 shows the percentage of acceptability of the translated term 'super computer' الحاسوب الفائقas it appears in the ICDL handbook and table 6, the result, shows the degree of acceptability of this term.

Table 5. The percentage of acceptability of the translated term 'super computer'

Term	No. of students who classified the term as 'excellent' or 'good'	Students percentage	No. of students who abstained	No. of students that equals 100%
Super Computer	20	55.6	7	36

Table 6. The degree of acceptability of the translated term 'super computer'

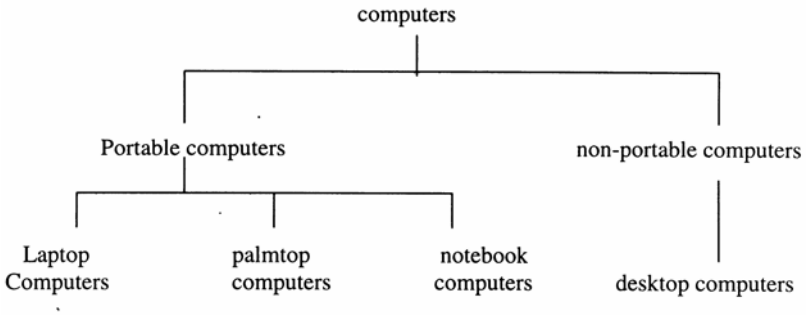
Terms	Students percentage	Degree
Super computer	55.6	Low

As the acceptability among these terms ranges from good to average and to low, the question to be asked is: "Is there a criterion that determines the degree of acceptability of these terms. On what basis does the translation of "mouse" as "فأرة" gains good acceptability where as the translation of "super computer" as "الحاسوب الفائق" gains low acceptability? Was the translation of the term fully studied from all aspects before it was thrown at the public to deal with? Did the terminologists as well as the translators reach to an agreement that this is the best translation of this term?" Besides the acceptability factor by the community that should be looked at, there is the appropriateness factor which is of equal importance. The same study sheds some light on this issue.

3. Appropriateness

Appropriateness means how far the term represents its concept (Raddawi, 1995). So, does the translation فأرة convey the function of this device? Is there any relationship between the lexical item and the function it represents? The denotative meaning of the word 'mouse' is "فأر" but what about its terminological meaning? Is it the same? On what basis is this term translated as فأرة in the computer domain? Does the translation of the phrase 'click on the mouse' اضغط على الفأرة produce the same effect on western readers as well as on Arabic readers? One of the functional tasks of the translation process is to stimulate a reaction in the target public identical to that of the source public. This implies that when the new destination reads or hears the term or the statement in their language, they should adopt the same attitude as the source language public.

The other term to be looked at is 'laptop' الحاسوب المحمول. To what extent is this term appropriate? How far does the term represent the concept? According to Sager (1990), partitive relationships, which are also called whole-part relationships, indicate the connection between concepts of more than one part as shown in the following tree structure.



This part-whole relationship between concepts shows that a laptop computer is not a synonym to a portable computer, but it is part of it. The Arabic translation الحاسوب المحمول is not a precise translation as الحاسوب المحمول is not a laptop. The translation of a portable computer is "الحاسوب المحمول". The laptop is one kind of portable computers. There are other kinds of portable computers besides the laptop as the palmtop and notebook, but each one of these three has a characteristic that differentiates it from the others. With the invention of other portable computers, new concepts are born which if not carefully dealt with, may cause ambiguity. Picht and Draskau (1985) state that with every new invention, a new concept is born whose type and formation need to be examined and whose identified characteristics are equivalent to our understanding of the concept.

A portable computer has the same characteristics of the computer and one more characteristic, which makes it different from other computers. Laptop, palmtop and notebook computers share all the characteristics of the portable computers and one more characteristic, which differentiates each one of them from the other computers. The relationship is as explained below:

Concept	characteristics
Computer	x
Portable computer	x +1 (adding one characteristic)
Laptop, palmtop, notebook	x+1+1 (adding two characteristics)

However, in the case of 'laptop' it is difficult to replace the term although it does not represent the concept precisely as it has become integrated in the society and people have become familiar with the term. Rey (1995) points out that there have been many examples of terms that

have remained stable although concepts have evolved or conceptual systems have changed: "Once a standardized or non-standardized term is associated to a concept in an important area of usage, it can survive as name of this concept, even if the concept evolves or if the conceptual system changes" (p. 109).

Table 7. Translations of 'laptop' as appears in four specialized computer dictionaries
لاب توب ، حاسوب شخصي صغير، الأجهزة الحضنية، حاسب شخصي صغي

المعجم الشامل لمصطلحات الحاسب الآلي والإنترنت 2001	معجم مصطلحات الكمبيوتر Computer Dictionary 2001	Al-Mwakeb: A modern English Arabic syntheses of computer technology 2000	Al-Kilani Dictionary of Computer Terminology 1996
لاب توب هو أحد أنواع الحاسبات المحمولة ويتميز بصغر حجمه وخفة وزنه حيث يزن ما بين ثمانية وعشرة باوند	حاسوب محمول	حاسوب شخصي صغير، الأجهزة الحضنية	حاسب شخصي صغير: كمبيوتر شخصي صغير الحجم يمكن نقله باليد من مكان إلى آخر0

Remarks on these translations

لاب توب a loan term that causes orthographic and phonological problems as the English (P) is not in the Arabic alphabets. حاسوب شخصي صغير does not convey the characteristic of being portable. الأجهزة الحضنية this term uses الأجهزة which is literally translated as 'lap devices'. It does not indicate that the device is a computer.

The third term to be looked at regarding its appropriateness is the term "super computer" which is translated as "الحاسوب الفائق" In the New Penguin Dictionary of Computing "super computer" is defined as: "a computer with very fast numeric processing abilities used for scientific and engineering tasks". In the Dictionary of Information Technology second edition "Super Computer" is defined as a "very powerful mainframe computer used for high speed mathematical tasks."

In معجم الوجيز (Al-Wajeez dictionary) "الفائق" is defined as:

الفائق: الجيد من كل شيء
الممتاز على غيره من الناس

Literal translation:
Super: good at everything.
The distinguished among people.

According to the above definition in Arabic, the adjective "الفائق" is appropriate because it covers efficiency in all aspects i.e. speed and capacity. So this term that has gained low acceptability is in fact the most appropriate term. The term "الفائق" represents the concept as it involves every thing: speed & capacity.

Translations of 'super computer' as appear in four specialized computer dictionaries.

Table 8. Translations of 'super computer' as appears in four specialized computer
لحاسوب العملاق، جهاز حاسب فاخر، جهاز حاسب ضخم

المعجم الشامل لمصطلحات الحاسب الآلي والإنترنت 2001	معجم مصطلحات الكمبيوتر Computer Dictionary 2001	Al-Mwakeb: A modern English Arabic syntheses of computer technology 2000	Al-Kilani Dictionary of Computer Terminology 1996
جهاز حاسب فاخر أكبر وأسرع وأغلى جهاز حاسب، يستخدم في الأعمال التي تتطلب قدرات عالية جدا من معالجة البيانات، حيث يستطيع هذا النوع من الحاسبات إجراء مئات الملايين من العمليات في الثانية الواحدة0	حاسوب فائق	الحاسوب العملاق	جهاز حاسب ضخم: أكبر وأسرع وأغلى كمبيوتر متوفر. يستخدم في الأعمال والمؤسسات التجارية التي تتطلب مقادير غير عادية من قدرة المعالجة0 ويستطيع الكمبيوتر هذا إنجاز مئات الملايين من العمليات في الثانية الواحدة0 The largest, fastest, and most expensive computer available. Used by businesses and organizations that require extraordinary amounts of computing power. Sometimes called 'number crunchers' because they perform hundreds of millions of operations per second.

> *The above translations are not precise. What do the terms represent, size or function? Finding a number of variants for a term is complicating the arabicization process as some of these, as the examples above have indicated, are not acceptable and others are not appropriate.*

If there had been more scientific-based discussions among specialists in the field of translation and terminology on one side and specialists in the field of Arabic linguistics and computer specialists on the other, more fruitful results could have emerged and better arabicized terminology could have been produced. Good terminology can be achieved through teamwork. A translator, a terminologist, a linguist and a specialist in the field are all needed to work as one hand to produce effective arabicized terminology.

Arabic terminology would not be a problem for the students as long as they are exposed to it frequently. However, it is not as easy as it sounds because of the variants existing in computer dictionaries for each single term, in addition to the different translations that exist throughout Arab countries. This lack of co-ordination distracts students' focus. Hence, an Arabic computer course in Algeria differs from an Arabic computer course in Syria. Arab Academia failed to keep up with the flood of terminology; they failed with standardizing terminology and catching up due to the lack of coordination. However, having an international course that is taught in a number of Arab countries is a step towards unification and standardization. The Arabic ICDL is taught in the Gulf area in addition to other Arab countries like Jordan and Egypt. This means that students in the pre-mentioned countries are learning the same Arabicized terminology. The responsibility lies now on the Arabic language academies to ensure that the terminology used in such courses are the best choices among the different existing variants.

To conclude about our recommendations, an urgent emphasis should be placed on the need for Arabicized computer courses with standardized terminology that would give the chance for monolinguals to have the same opportunities as bilinguals in using technology. Such a concrete step towards standardization of computer terminology is certainly not to be taken for granted. It certainly requires a team work as stated by Rondeau (1983) long time ago with multidisciplinary skills so as to coin the term (one concept/one designation) and the three proposed criteria. According to Rondeau the standardization process which is aimed at facilitating special

communication (one designation corresponding to a single concept and each concept to be designated by a single term) is based on a series of principles that must be followed. Looking at ICDL course structure and perspectives, one can set a parallelism to test the applicability of such standardization principles to ICDL courses.

a. It is an act of simplification that reduces variety and increases uniformity by choosing one alternative over others.
b. It is a group activity that must be achieved via consensus, not by imposition.
c. It is an activity whose only value lies in its application […]
d. It is an act that can be revised, but it should be stable enough so that those who have to comply with it take it into account; decisions must be the result of detailed, reasoned arguments.
e. It is a social activity with economic repercussions.

(Rondeau, 1983, p. 131)

According to the surveys conducted for the purpose of this study, Arabicized ICDL courses present a simplified standard act of terminology with no synonymy or polysemy hindrances. .It is a team work achieved upon the agreement of its members that comply with certain criteria as shown in the study. The terminology is applied since it is used by the students and instructors who are at the same time end users of this terminology across the region. Like any other course, the ICDL is subject to revision and updating in all senses and levels. It is also a "social activity" as the enrolled students constitute an important layer of society.

CONCLUSION

The arabicized ICDL approach would undoubtedly pave the way for dissemination and unification of the term based on certain principles of standardization. One should not forget the vital role of technology whether at the personal or general levels along with the media role in spreading and implementing the use of this terminology. Last but not least, governments should have their share in imposing restrictions as to the use of alternatives to an accredited ICDL arabicized terminology. Briefly, all parties should be strongly motivated and urgently involved to lead this project towards a real and concrete step of effective standardized Arabic terminology.

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